

Amendments to the Claims:

Claims 14, 17, 19, 24, 26, 71, and 78 through 80 have been amended herein. Please note that all claims currently pending and under consideration in the referenced application are shown below. Please enter these claims as amended. This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-12 (Cancelled).

13. (Previously presented) A method of forming at least one conductive trace within an interior of a pipe, comprising:

disposing a movable spray gun within an interior of a pipe;

generating a reduced air pressure zone proximate the spray gun wherein the reduced air pressure zone is movable with the spray gun;

spraying, via the movable spray gun, a conductive material toward an interior surface of the pipe

while moving the movable spray gun in relation thereto and generating the reduced air pressure zone proximate the spray gun to form at least one conductive trace.

14. (Currently Amended) The method according to claim 13, further comprising spraying, via the movable spray gun, an insulative material toward ~~an~~ the interior surface of the pipe while moving the movable spray gun in relation thereto and generating the reduced air pressure zone proximate the spray gun to form an insulating layer upon the interior surface of the pipe prior to spraying the conductive material.

15. (Cancelled)

16. (Previously presented) The method according to claim 14, wherein spraying the insulating material comprises:

mounting the movable spray gun to an extension arm; and
inserting the extension arm at least partially into the interior of the pipe.

17. (Currently Amended) The method according to claim 16, wherein generating the zone of reduced air pressure adjacent the spray gun comprises drawing overspray of the insulating material in a direction generally opposite to the direction of spraying.

18. (Previously presented) The method according to claim 16, wherein generating the zone of reduced air pressure adjacent the spray gun comprises transporting overspray through the extension arm.

19. (Previously presented) The method according to claim 16, wherein providing a spray gun comprises providing a thermal spray gun.

20. (Previously presented) The method according to claim 19, further comprising cooling the thermal spray gun.

21. (Previously presented) The method according to claim 20, further comprising cooling the extension arm separately from the thermal spray gun.

22. (Cancelled)

23. (Previously presented) The method according to claim 13, wherein spraying the conductive material comprises:
mounting the movable spray gun; and
inserting the extension arm at least partially into the interior of the pipe.

24. (Currently Amended) The method according to claim 23, wherein generating a zone of reduced air pressure adjacent the spray gun comprises drawing overspray of the

conductive material in a direction generally opposite to the direction of spraying.

25. (Previously presented) The method according to claim 24, wherein generating the zone of reduced air pressure adjacent the spray gun comprises transporting overspray through the extension arm.

26. (Currently Amended) The method according to claim 23, wherein providing ~~at the~~ the spray gun comprises providing a thermal spray gun.

27. (Previously presented) The method according to claim 26, further comprising cooling the thermal spray gun.

28. (Previously presented) The method according to claim 27, further comprising cooling the extension arm separately from the thermal spray gun.

29. (Previously presented) The method according to claim 13, further comprising flushing the interior of the pipe with cooling air.

30. (Previously presented) The method according to claim 29, further comprising directing the cooling air into the interior of the pipe from at least one cooling air outlet disposed on the extension arm.

31. (Previously presented) The method according to claim 29, further comprising directing the cooling air into the interior of the pipe from an open end of the pipe.

Claims 32-68 (Canceled)

69. (Previously presented) The method according to claim 16, further comprising rotating the pipe while spraying the insulative material.

70. (Previously presented) The method according to claim 16, further comprising measuring a position of the spray gun in relation to the interior surface of the pipe while spraying the insulative material.

71. (Currently Amended) The method according to claim 70, further comprising controlling the position of the spray gun in relation to the interior surface of the pipe responsive to measuring the position.

72. (Previously presented) The method according to claim 16, further comprising measuring the thickness of the insulative layer while spraying the insulative material.

73. (Previously presented) The method according to claim 23, further comprising rotating the pipe while spraying the conductive material.

74. (Previously presented) The method according to claim 23, further comprising measuring the position of the spray gun in relation to the interior surface of the pipe while spraying the conductive material.

75. (Previously presented) The method according to claim 23, further comprising measuring the thickness of the conductive material while spraying the conductive material.

76. (Previously presented) The method according to claim 29, wherein flushing the interior of the pipe with cooling air comprises introducing atomized water into the interior of the pipe, the atomized water carried by the cooling air.

77. (Previously presented) The method according to claim 23, further comprising spraying an insulative layer over the at least one conductive trace.

78. (Currently Amended) The method according to claim 14, wherein spraying ~~at the~~ conductive material toward ~~at the~~ interior surface of the pipe to form ~~the~~ at least one conductive trace comprises spraying ~~at the~~ conductive material toward ~~at the~~ interior surface of the pipe to form a plurality of conductive traces.

79. (Currently Amended) The method according to claim 78, wherein spraying ~~at the~~ conductive material toward ~~at the~~ interior surface of the pipe to form ~~at the~~ plurality of conductive traces comprises forming each of the plurality of conductive traces upon the insulative layer.

80. (Currently Amended) The method according to claim 78, wherein: forming ~~at the~~ insulative layer comprises forming a plurality of separate insulative layer segments; and spraying ~~at the~~ conductive material toward ~~at the~~ interior surface of the pipe to form ~~at the~~ plurality of conductive traces comprises forming a respective one of the plurality of conductive traces onto each of the plurality of separate insulative layer segments.